

Claims

1. A switchable cam follower (1) or a switchable support element of a valve train of an internal combustion engine, said cam follower or support element comprising an outer part (2) which is assembled together with an inner part (4) that is displaceable relative thereto in a direction of cam lift, said inner part (4) comprising, at a parting gap (5) to the outer part (2), two spaced apart or opposing openings (6, 7) for coupling means, each of said openings (6, 7) being aligned, at one cam position, to a further opening (10, 11) for coupling means in the outer part (2), the coupling means being configured and arranged so that, in a coupled state, each coupling means extends beyond the parting gap (5) on one coupling side (12, 13) while simultaneously extending in the opening (10, 6) of the outer and the inner part (2, 4), **characterized in that**, in an uncoupled position of the coupling means (14, 15), an axial idle stroke of the coupling means (15) on the one coupling side (12) till coupling is achieved is large and the axial idle stroke of the coupling means (14) on the further coupling side (13) till coupling is achieved is small.
2. A cam follower or a support element according to the preamble of claim 1, or according to claim 1, **characterized in that**, in a coupled state of the coupling means (14, 15), a radial clearance of the coupling means (15), alone or together with a tolerance of the radial clearance relative to its opening (10) on the one coupling side (12) is large and relative to its opening (7) on the further coupling side (13) is small.
3. A cam follower or a support element according to claim 1 or 2, **characterized in that** the openings (6, 7, 10, 11) are configured as bores and the coupling means (15, 14) are configured as piston-like slides.

4. A cam follower or a support element according to claim 3, **characterized in that** sleeve-like bodies (21, 19) are mounted in the openings (11, 6 and 7) in which the coupling means (14, 15) extend in case of uncoupling, and the coupling means (14, 15) are arranged directly in bores (22, 20) of the sleeve-like bodies (21, 19).
5. A cam follower or a support element according to claim 3, **characterized in that** the outer part (2) has an annular configuration, and the inner part (4) extends in a bore (3) of the outer part (2).
6. A cam follower or a support element according to claim 5, **characterized in that** only one edge (9) of the opening (7) for the coupling means (14) on the further coupling side (13), into which opening (7) the coupling means (14) penetrates for coupling, is made as a flat surface.
7. A cam follower or a support element according to one of the preceding claims **characterized in that** a slide assembly comprising a total of two coupling means (14, 15) is used, the openings (6, 7) in the inner part (4) merge together to form a through-bore within which the one coupling means (15) extends at least almost over an entire length thereof, the further coupling means (14) is arranged in the opening (11) of the further coupling side (13) and comprises, radially inwards, a crowned front end (17) serving as a contact surface for one end face (16) on the one coupling means (15) in the inner part (4), and, in case of uncoupling, the front end (17) bears against the end face (16) during the one cam position.
8. A cam follower or a support element according to claim 1, 2 or 7, **characterized in that** the one cam position is determined by a base circle contact of the cam or cams.